extends itself; while part of the spermatozoal contents of the original sac also pass into the newly-formed cavity. The superadded portion continues to increase in size, and soon acquires a form exactly resembling that of the original sac, so that each gonophore now presents a double sac, one superposed upon the summit of the other. Into this second sac the original one continues to discharge its contents, and gradually contracts as the terminal one enlarges. In the terminal sac the spermatozoa attain to their full maturity, and ultimately, in the shape of pyriform caudate corpuscles, escape from it by an aperture in its summit.

## BIBLIOGRAPHICAL NOTICES.

British Wild Flowers. Illustrated by J. E. Sowerby. 8vo. London: Van Voorst, 1860.

A REISSUE of this useful book has been commenced by Mr. Van Voorst in monthly parts. The book consists of 80 coloured plates, containing figures of a portion of each of 1600 British flowering plants. These figures are very nicely executed, and are parts of the complete representation of the plant which is to be found in the well-known 'English Botany' or its Supplement. In most cases they amply fulfil the purpose for which they are intended. Being clear, and usually characteristic of the plants, they will be found convenient for removing temporary difficulties caused by want of memory or an imperfect knowledge of allied species. Such a book is sure to be useful, and seems to supply a want that has long been felt.

Certainly there are cases in which we should have made a slightly different selection from the original plate, or added an outline of some organ not there delineated: the judgment of the artist or his adviser differed considerably from ours in the estimation of what would be most useful to the student. But that is a very small fault; for it only renders the book a little less useful than it might

have been.

We do not think much of the letterpress which accompanies the plates; and, indeed, its author claims very little credit for it. No person must attempt to use it as a descriptive flora. If the descriptions had been left out, much space would have been saved, and the value of the book not diminished. All the letterpress requisite is the name of the plant and a few references to descriptions by recognized authors.

We wish that all the plants of which figures have appeared in the 'Supplement to English Botany' had been inserted in these plates. Those contained in vol. iv. of the 'Supplement' seem to be omitted; and as they consist chiefly of the more recent discoveries, or what are called critical plants, their want will often be felt. Mr. Sowerby may perhaps have done well in giving figures of some plants included by mistake in 'English Botany,' in order that his 'Wild Flowers'

might present a complete view of the contents of that great work; but he certainly should not have omitted the last supplementary volume.

In a work of such humble pretensions and at the same time so useful as the present, we do not wish to be hypercritical; but it is necessary to notice a few instances in which the figures are incorrect, either through blindly copying an originally erroneous plate, or from accidental changes made by the artist.

219. Cerastium semidecandrum does not represent any known plant: the diaphanous part of the bracts (characteristic of the species), which is badly represented in the original plate, is totally omitted

here.

241. Hypericum Androsæmum is duly copied from the 'English Botany,' but is now universally admitted not to represent the true

plant.

444. Epilobium alsinifolium. We have learned from the original drawings and notes that Eng. Bot. t. 2000 is formed of the flowers of E. montanum (copied into the 'Wild Flowers') and the base of the stem of E. obscurum. E. alsinifolium is therefore not represented in 'English Botany' nor in 'Wild Flowers.'

537. Enanthe pimpinelloides is not the true plant, but is E. Lachenalii. The real E. pimpinelloides is not figured in English

Botany.'

613. Valeriana dioica, and 614. V. officinalis. This is a good example of the uselessness of scraps, either as specimens or figures. No person unacquainted with these very different plants could distinguish them by these figures, which nevertheless are carefully copied from parts of the original plates.

1215. Anacharis Alsinastrum. This sketch is taken from the good plate in the 'Annals of Natural History,' but the parts are badly selected. A flower with three styles should have been given,

and the long tube represented.

1244. Neottia gemmipara. The drawing has been taken from the bad plate in the 'Supplement to English Botany,' instead of the

beautiful figure in the 'Linnæan Transactions' (xix. t. 32).

We have already mentioned one drawing of a plant not included in the 'English Botany;' and there seems to be only one other, viz. 13. Ranunculus pantothrix. It is quite impossible to say what plant this is intended to represent; for no Water-Ranunculus ever had such leaves as are there depicted. We suspect, judging from the flower, that it may have been taken from a specimen of R. Drouetii.

It will be seen from the few remarks that we have felt it necessary to make that the great bulk of the 1600 figures are good; many of them are excellent.

We strongly recommend the book to our readers. Figures of 1600 plants for £3, or more than 26 for a shilling, cannot be considered otherwise than exceedingly cheap.